Algebraic Multigrid Methods for Symmetric Positive Definite Matrices with Weak Diagonal Dominance, Convergence of, 46:145

Algorithm, A Fixed Point, for Solving the Euclidean Multifacility Location Problem in a Tree, 44:105

Algorithms, Alternative, for Solving Nonlinear Functions and Functional Inequalities, 41:159

Algorithms, Numerical, Exponential Interpolation: Theory and, 41:189

Algorithms, Parallel, for Implicit Material Dynamics Schemes, 46:179

Algorithms, Partitioning and Sectional Search, Optimality Tests for, 44:157

Analytic Models of Water Loss in Sprinkler Irrigation, 43:19

Applied Mathematics, Kalaba's Work in: Modeling, Optimization, and Inverse Problems, 45:93

Artificial Life with Autonomously Emerging Boundaries, 43:271

Asymptotic Expansion and Geometric Properties of the Spline Collocation Periodic Solution of an ODE System, 42:209

Asymptotics and the Hermite Corrector Formula, A Computation of Fermi-Dirac Integrals by, 41:61

Automation Project, Factory, Selection Using Multicriterion *Q*-Analysis, 46:107

Biomolecule, an Accidentally Created Chiral, in the Racemic Prebiotic Medium, The Kinetics of Growth of, 43:139

Boundaries, Autonomously Emerging, Artificial Life with, 43:271

Boundary Data, Numerical Estimation of the Coefficient of the Homogeneous Riemann-Hilbert Problem on the Basis of, 41:21

Boundary-Value Problems in Differential-Algebraic Equations, A Perturbed Collocation Method for, 45:269

Burgers Equation, the, Solution of, on Semi-infinite and Finite Intervals via a Stream Function, 41:145

Calculus for a Multivalued-Logic Algebraic System, 42:255

Cauchy Problem of Linearized Couette Flow, Stochastic Approach to, 45:207

Cellular-Automaton Method, The Effect of the Alkyl Chain Length of Modifier Molecules on Membrane Structure Studied by, 44:183

Combustion Code, a Two-Dimensional, Acceleration of, Using MOSI to Find the Pressure and Pressure-Correction Fields for a SIMPLER Based Algorithm, 46:211

Compartmental Models, Continuous-Time, Stochastic, of Discrete Interacting Populations, Regression Approximations for, 45:73

Competitive Systems with Obstacles, Variational Approach for, 42:65

Conflict Analysis, Cooperation in, 43:181

Continuation, A New Start System for Solving Deficient Polynomial Systems Using, 44:225

Continuation Techniques, Discrete Observability of Nonlinear Systems Using, 44:241

Control, Estimation, and System Identification, Invariant Imbedding in, 45:99

Control, Hybrid Adaptive, 45:173

Controllability in the Kornai-Weibull Queueing Model of a Market in a Shortage Economy, 43:207

Cooperation in Conflict Analysis, 43:181

Couette Flow, Linearized, Stochastic Approach to the Cauchy Problem of, 45:207

Curves, The Direct Variational Grid Generation Method Extended to, 43:65

Darcy-Lapwood and Darcy-Lapwood-Brinkman Models, the, Analysis of: Significance of the Laplacian, 44:121

Data Fitting Approach, A, to Series Convergence Acceleration, 42:189

Differential-Algebraic Equations, Boundary-Value Problems in, A Perturbed Collocation Method for, 45:269

Differential-Algebraic Equations, A Numerical Resolution of, 44:261

Differential Equations, Minimal and Maximal Solutions of, Application of Interval Analysis to, 41:77
Differential Equations, Second Order Linear, On Oscillations of, 46:135
Differential Equations, Strongly Coupled Riccati Matrix, Exact Solution of a Class of, 43:165
Differential Systems with Finite Delay, Monotone Iterative Methods for, 43:43
Direct Variational Grid Generation Method, The, Extended to Curves, 43:65
Discrete-Valued Factors, Design of Frequency-Domain Experiments for, 42:1
Disease, Fatal, Inference on a, 41:89
Displacement-Rank Concept, the, Remarks on the Origin of, 45:193
Distributed-Parameter Systems, Nondispersive, Noncollocated Point Control of, Using Time Delays, 42:23
Diversity, A Procedure to Test the Suitability of a Factor for Stratification in Estimating, 43:221
Dynamic Systems with Modified Contractions, Global Asymptotical Stability of, 43:237

Elastic Parameters in a Nonlinear Elliptic Model of a Plate, Estimation of Elastic Parameters in, 42:139
Electric Power Systems, Reliability Monitoring and Control in, 43:117
Elliptic Problems, Multilevel Preconditioners for, by Substructuring, 46:79
Eutrophic Water Bodies, The Optimal Reclamation of, 43:105
Existence Theorem, An, for an Optimal Economic Growth Problem with Infinite Planning Horizon, 44:249
Existence and Uniqueness in Photometric Stereo, 44:1
Exponential Interpolation: Theory and Numerical Algorithms, 41:189

Facultative Mutualism, Stability and Persistence of, with Populations Interacting in a Food Chain, 45:1
Fermi-Dirac Integrals, A Computation of, by Asymptotics and the Hermite Corrector Formula, 41:61
Flip Bifurcation of Maps, Numerical Analysis of the, 43:231
Frequency-Domain Experiments for Discrete-Valued Factors, Design of, 42:1

Galerkin Method with Vector Basis Functions, On the, 42:85
Global Asymptotical Stability of Dynamic Systems with Modified Contractions, 43:237
Gronwall-Bellman-Reid Inequalities, Generalizations of, 41:129
Growth of an Accidentally Created Chiral Biomolecule in a Racemic Prebiotic Medium, The Kinetics of, 43:139

Health-Risk Analysis, Fuzzy Set and Probabilistic Techniques for, 45:241
Hermite-Type Interpolation of Squared-Magnitude Functions, 43:265
Homotopy Continuation, Adaptive, Solving Nonlinear Equations by, 41:99
Hybrid Adaptive Control, 45:173

Implementing the Jackknife, 42:111
Implicit Difference Method, An, for the Numerical Solution of Coupled Systems of Partial Differential Equations, 46:127
Implicit Material Dynamics Schemes, Parallel Algorithms for, 46:179
Inference on a Fatal Disease, 41:89
Interval Analysis, Applications of, to Minimal and Maximal Solutions of Differential Equations, 41:77
Invariant Imbedding in Control, Estimation, and System Identification, 45:99
Inverse Problem, The Kidney Model as an, 44:195
Invertibility of Leslie Systems, On the, 41:179
Irrigation, Sprinkler, Analytic Models of Water Loss in, 43:19
Iterative Methods, Monotone, for Differential Systems with Finite Delay, 43:43
Iterative Transformation Method, The, and Length Estimation for Tubular Flow Reactors, 42:105

Jackknife, Implementing the, 42:111

(Kalaba, Bob) Best Wishes to Bob on His 65th Birthday, 45:91
Kalaba, Bob: Teacher, Colleague, and Friend (Foreword to Vol. 45, No. 2), 45:85
Kalaba, Robert, Work by, on Automated Sensitivity Analysis, 45:121
Kalaba, Robert, Work by, on Multicriteria Estimation, 45:159
Kalaba's Associative Memories for System Identification, 45:135
Kalaba's Work in Applied Mathematics: Modeling, Optimization, and Inverse Problems, 45:93
Kidney Model, The, as an Inverse Problem, 44:195
Kinetics, The, of the Growth of an Accidentally Created Chiral Biomolecule in the Racemic Prebiotic Medium, 43:139
Kornai-Weibull Queueing Model of a Market in a Shortage Economy, the, Controllability in, 43:207

Learning, Evolutionary, in Reaction-Diffusion Neurons, 41:233
Leslie Systems, On the Invertibility of, 41:179
LH Algorithm, the Modified, Implementing, 45:31
Limit Cycles, Slow-Fast, in a Three-Dimensional System, An Application of the Separation Principle for Detecting, 43:1
Loop Lattice, Summation-over-Paths Degree of Freedom and the, 42:197
L-Systems, Symbolic Computation Using, 42:223

Material Dynamics Schemes, Implicit, Parallel Algorithms for, 46:179
Matrices, Symmetric Positive Definite, with Weak Diagonal Dominance, Convergence of Algebraic Multigrid Methods for, 46:145
Membrane Structure, The Effect of the Alkyl Chain Length of Modifier Molecules on, Studied by the Cellular-Automaton Method, 44:183
Migration, Internal, Physical-Based Models of, 43:95
Minimization of a Functional, Rapid Calculation of Tokamak Equilibria with Toroidal Rotation via, 43:145
Modeling and Control of Water Quality in a River Section, Theoretical Aspects of, 41:35
Monotone Iterative Methods for Differential Systems with Finite Delay, 43:43
MOSI, Acceleration of a Two-Dimensional Combustion Code Using, to Find the Pressure and Pressure-Correction Fields for a SIMPLER Based Algorithm, 46:211
MUDPACK, a Multigrid Software Package for Elliptic Partial Differential Equations, Recent Enhancements in, 43:79
Multicriteria Estimation, Work by Robert Kalaba on, 45:159
Multicriterion *Q*-Analysis, Factory Automation Project Selection Using, 46:107
Multifacility Location Problem in a Tree, the Euclidean, A Fixed Point Algorithm for Solving, 44:105
Multilevel Preconditioners for Elliptic Problems by Substructuring, 46:79
Multivalued-Logic Algebraic System, a, Calculus for, 42:255

Neurons, Reaction-Diffusion, Evolutionary Learning in, 41:233
Nonlinear and Active Cochlear Mechanics, Modeling of, and its Volterra-Series Analysis, 43:241
Nonlinear Elliptic Model of a Plate, Estimation of Elastic Parameters in a, 42:139
Nonlinear Equations, Solving by Adaptive Homotopy Continuation, 41:99
Nonlinear Functions and Functional Inequalities, Alternative Algorithms for Solving, 41:159
Nonlinear Systems, Discrete Observability of, Using Continuation Techniques, 44:241
Nonparametric EM Algorithms for Estimating Prior Distributions, 45:143
Numerical Analysis of the Flip Bifurcation of Maps, 43:231
Numerical-Integration Method for Solving Singular Perturbation Problems, the, A Note on, 43:175
Numerical Methods for Three-Dimensional Models of the Urine Concentrating Mechanism, 45:219

ODE System, an, Asymptotic Expansion and Geometric Properties of the Spline Collocation Periodic Solution of, 42:209

Optimal Economic Growth Problem with Infinite Planning Horizon, an, An Existence Theorem for, 44:249
Orthogonal Set, An, Composed from the Functions e^{nx}, $n0$, $x0$, 41:69

Parabolic Problems, Singular Semilinear, Computational Methods for Time-Periodic Solutions of, 42:287
Partial Differential Equations, Coupled Systems of, An Implicit Difference Method for the Numerical Solution of, 46:127
Partial Differential Equations, Elliptic, Recent Enhancements in MUDPACK, a Multigrid Software Package for, 43:79
Partitioning and Sectional Search Algorithms, Optimality Tests for, 44:157
PDE Defined on a Triangle, a, Pseudospectral Approximation of, 42:121
Perturbation Problems, Singular, A Note on the Numerical-Integration Method for Solving, 43:175
Perturbed Collocation Method, A, for Boundary-Value Problems in Differential-Algebraic Equations, 45:269
Photometric Stereo, Existence and Uniqueness in, 44:1
Physical-Based Models of Internal Migration, 43:95
Polynomial Systems, Deficient, A New Start System for Solving, Using Continuation, 44:225
Prior Distributions, Nonparametric EM Algorithms for Estimating, 45:143
Probabilistic Techniques, Fuzzy Set and, for Health-Risk Analysis, 45:241
Pseudospectral Approximation of a PDE Defined on a Triangle, 42:121

Queueing Model of a Market in a Shortage Economy, the Kornai-Weibull, Controllability in, 43:207

Random Fields Characterized by Discrete Regions of Constant Value, Generation of, 45:293
Regression Approximations for Continuous-Time, Stochastic Compartmental Models of Discrete Interacting Populations, 45:73
Reliability Monitoring and Control in Electric Power Systems, 43:117
Riccati Matrix Differential Equations, Strongly Coupled, Exact Solution of a Class of, 43:165
Riemann-Hilbert Problem, the Homogeneous, Numerical Estimation of the Coefficient of, on the Basis of Boundary Data, 41:21

Sensitivity Analysis, Automated, Work by Bob Kalaba on, 45:121
Separation Principle, the, An Application of, for Detecting Slow-Fast Limit Cycles in a Three-Dimensional System, 43:1
Series Convergence Acceleration, A Data Fitting Approach to, 42:189
Set-spectrum Method in Structure Comparison and the Concept of Topological Kinship, 41:1
SIMPLER Based Algorithm, a, Acceleration of a Two-Dimensional Combustion Code Using MOSI to Find the Pressure and Pressure-Correction Fields for, 46:211
Sine-Gordon Equation, the, Two Energy Conserving Numerical Schemes for, 45:17
Spectral Multigrid Method, A 3D, 41:117
Spline Collocation Periodic Solution of an ODE System, the, Asymptotic Expansion and Geometric Properties of, 42:209
Squared-Magnitude Functions, Hermite-Type Interpolation of, 43:265
Stackelberg Leader-Leader Model, An *N*-Person, 46:221
Stochastic Approach to the Cauchy Problem of Linearized Couette Flow, 45:207
Stochastic-Dynamic-Programming Models of Reservoir Operation, Alternative Specifications of State Variable in, 44:143
Stratification, A Procedure to Test the Suitability of a Factor for, in Estimating Diversity, 43:221
Stream Function, a, Solution of the Burgers Equation on Semiinfinite and Finite Intervals via, 41:145
Structure Comparison, Set-spectrum Method in, and the Concept of Topological Kinship, 41:1
Substructuring, Multilevel Preconditioners for Elliptic Problems by, 46:79
Summation-over-Paths Degree of Freedom and the Loop Lattice, 42:197

Symbolic Computation Using L-Systems, 42:223
System Identification, Control, Estimation, and, Invariant Imbedding in, 45:99
System Identification, Kalaba's Associative Memories for, 45:135

Three-Dimensional Models of the Urine Concentrating Mechanism, Numerical Methods for, 45:219
3D Spectral Multigrid Method, A, 41:117
Time Delays, Noncollocated Point Control of Nondispersive Distributed-Parameter Systems Using, 42:23
Time-Periodic Solutions of Singular Semilinear Parabolic Problems, Computational Methods for, 42:287
Tokamak Equilibria with Toroidal Rotation, Rapid Calculation of, via Minimization of a Functional, 43:145
Topological Kinship, Set-spectrum Method in Structure Comparison and the Concept of, 41:1
Traveling Salesman, Tours for the, 46:167
Tubular Flow Reactors, The Iterative Transformation Method and Length Estimation for, 42:105

Utility Function, Multiattribute, A Generalized Decomposable, 44:271

Vector Basis Functions, Galerkin Method with, On the, 42:85
Volterra-Series Analysis, Modeling of Nonlinear and Active Cochlear Mechanics and its, 43:241

Water Bodies, Eutrophic, The Optimal Reclamation of, 43:105
Water Loss in Sprinkler Irrigation, Analytic Models of, 43:19
Water Quality in a River Section, Modeling and Control of, Theoretical Aspects of, 41:35